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### Understanding conservationists' perspectives on the new conservation debate

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# 1 Understanding conservationists' perspectives on the New

## 2 Conservation debate

### 4 **Abstract**

5 Recently, there has been a vibrant debate about the future direction of biodiversity  
6 conservation, particularly centred on the merits of a so-called “New Conservation”.  
7 Proponents of the New Conservation advocate a series of positions on key  
8 conservation ideas, such as the importance of human-dominated landscapes and  
9 conservation’s engagement with capitalism. These have been fiercely contested in a  
10 debate dominated by a few high profile individuals, and so far there has been no  
11 empirical exploration of what perspectives exist on these issues amongst a wider  
12 community of conservationists. In this paper, we use Q methodology to provide an  
13 empirical examination of perspectives held by attendees at the 2015 International  
14 Congress for Conservation Biology (ICCB). Although our findings identify consensus  
15 on several key issues, three distinct positions emerged. Factor 1 is in favour of  
16 conservation to benefit people but opposes links with capitalism and corporations,  
17 Factor 2 favours biocentric approaches but with less emphasis on protecting  
18 wilderness than prominent opponents of New Conservation, and Factor 3 has strong  
19 links to the published New Conservation perspective but places less emphasis on  
20 increasing human wellbeing as a goal of conservation. Our results reveal important  
21 differences between the New Conservation debate in the literature and views held  
22 within a wider, but still limited, conservation community, and demonstrate the  
23 existence of at least one viewpoint (Factor 1) that is almost absent from the  
24 published debate. We hope that the fuller understanding this paper presents of the

variety of views that exist, but have not yet been heard, will improve the quality and tone of debates on the New Conservation.

## **Introduction**

The publication of Kareiva et al.'s (2012) essay "Conservation in the Anthropocene" triggered a vibrant, and often contentious, debate about the future of biodiversity conservation. This debate, over what has become known as the New Conservation, has been conducted through a series of positioning and opinion pieces which are mostly either in favour of the New Conservation view (Kareiva et al, 2012; Kareiva & Marvier 2012), or against it, for a variety of reasons (Greenwald et al. 2013; Soulé 2013; Noss et al. 2013; Doak et al. 2014; Miller et al. 2014). More recently, several pieces have analysed the nature and tone of the debate (Hunter et al. 2014; Tallis and Lubchenco 2014). Although the debate has extended into the broader conservation community, its public manifestations have been "dominated by only a few voices, nearly all of them men's" (Tallis & Lubchenco 2014; 27), and no attempt has been made to describe views from a wider community of conservationists. This has led hundreds of signatories to back Tallis and Lubchenco's (2014) call for a new chapter in the debate, based on a wider range of views.

Originally proposed in an essay for The Breakthrough Institute (Kareiva et al. 2012), and further developed in later articles (Kareiva & Marvier, 2012), the New Conservation is based on a series of core principles and values (described by its

authors as functional and normative postulates, respectively) for conservation in the 21<sup>st</sup> century (Table 1). The New Conservation postulates are an attempt to update Soulé's (1985) foundational functional postulates for conservation. They draw on developments in the conservation sciences, and react to what Kareiva and Marvier (2012) see as Soulé's damaging inattention to human wellbeing.

[[[Table 1 here]]]

In response, authors who might be called 'traditional' conservationists have provided various counter-arguments and refutations of the New Conservation position, including, *inter alia*, that New Conservation exaggerates nature's resilience, that its embrace of economic growth ignores fundamental planetary limits, and that there are many almost-intact wildernesses worth saving, which are neglected by a greater focus on conserving human-dominated places (Soulé 2013; Jacquet 2013; Noss et al. 2013; Doak et al. 2014; Miller et al. 2014; Wilson 2016). Traditional conservationists have also argued that the majority of conservation action already takes place in human-dominated places. In addition, and in contrast to Kareiva and Marvier's (2012) assertion, Greenwald et al. (2013) argue that conservation has long held concerns for human wellbeing, and this was mentioned in Soulé's (1985) original article.

The antagonism is partly because the New Conservation debate is not just about *how* conservation should be done, but also about different ethical values that underpin *why* conservation should be done, and for whom (Hunter et al. 2014). The New Conservation is more anthropocentric, emphasising the benefits of nature to

humans, and prioritising the emergent properties of ecosystems which provide these, such as stability and productivity. Traditional conservation is more biocentric, emphasising the intrinsic value of nature, and prioritising issues of species diversity and extinction. These values are often implicit rather than explicit within key positioning papers (Hunter et al. 2014).

Conservation has a history of plural views driving different framings of what conservation is, and what it is for (Mace 2014), and these longer-running debates are reflected in the current New/traditional conservation debate (Holmes 2015). There has been a long debate about whether poverty alleviation in conservation is a damaging distraction, an ethically justifiable addition to the mission of conservationists, or a vital tool to make conservation more effective (Roe 2008). Similarly, in recent decades there have been disputes over whether true wilderness exists, and whether it is a useful or harmful concept for conservation (Callicot & Nelson 1998). There is a long history of conservationists variously advocating for, and critiquing, working with corporations and capitalism (Brockington and Duffy 2010). What is new in the New Conservation debate is the way these and other issues have been packaged together into just two opposing positions on why, how and what to conserve (Holmes 2015). Meanwhile, other relevant debates in conservation social science, such as those on biocultural diversity, remain absent.

One substantial body of social science literature emerging in recent years, which is particularly relevant to many key themes in the New Conservation, is that on neoliberal conservation. This explores the increasing integration between conservation and capitalism, considering the mechanisms by which such integration

has taken place, such as payments for ecosystem services, biodiversity offsetting and ecotourism, the claims of synergies between conservation and capitalism which underpin these mechanisms, and the role of major conservation NGOs in promoting such mechanisms (Igoe and Brockington 2007; Brockington and Duffy 2010). These claimed synergies are part of the New Conservation discourse, which warns against “scolding capitalism” (Kareiva et al. 2012) and advocates working with corporations not as a “necessary evil”, but because they “can be a positive force for conservation” (Kareiva & Marvier 2012 p967). The critical literature on neoliberal conservation originates from diverse authors, including political ecologists (Igoe and Brockington 20078), conservation biologists (McCauley 2015) and mixtures of the two (Redford and Adams, 2009). It has direct relevance to the New Conservation debate, but explicit cross-referencing between the two is very rare (for an exception, see Spash 2015).

The purpose of this paper is to expand the debate about the New Conservation beyond the voices of a few prominent individuals by empirically examining the range of positions that exist amongst a wider group of conservationists, sampled from an international conservation conference. Accordingly, we aim to evaluate the extent to which a particular group of conservationists share the views espoused in the public debate, or adopt more nuanced or contrasting positions.

## **Methods**

### **What is Q and what does it do?**

We used Q methodology to undertake a systematic analysis of the perspectives of

conservation professionals attending the International Congress on Conservation Biology (ICCB) conference, 2015. Q methodology is growing in popularity as a method for exploring structure and form within subjective opinions and discourses and it has been increasingly applied to conservation research in recent years (e.g. Sandbrook et al. 2010; Chamberlain et al. 2012; Cairns et al. 2014; Fisher & Brown 2014). Q combines the qualitative study of perceptions with the statistical rigour of quantitative techniques (McKeown & Thomas 1998; Watts & Stenner 2012). Q methodology requires respondents to arrange statements drawn from the public discourse on a topic onto a grid to reflect their views. The method is used to identify particular subjective positions, identified as factors, and how these are shared by people. It also enables the detailed analysis and comparison of the composition of these positions. Q methodological studies are not concerned with the prevalence of positions in a population, which is the domain of conventional surveys. Accordingly, Q is designed for small numbers of participants and does not require a random sample (McKeown & Thomas 1998). Watts and Stenner (2012) provides a comprehensive source on Q methodology.

#### **The Q sample (statements)**

A Q study starts by defining statements; we identified potential statements from the peer reviewed literature that introduces, critiques and defends ideas associated with the New Conservation (see Appendix S1 for a full list of reviewed literature). To identify material to review, we started with the key articles that launched the New Conservation debate (e.g. Kareiva et al. 2012; Kareiva & Marvier, 2012), and then used Google Scholar to identify all articles citing this work, discarding those that were clearly not relevant. We selected candidate Q statements from the articles covering the major themes of the New Conservation literature. Q statements must

span the range of existing positions and be concise and clear, such that respondents can place them instinctively. We chose 38 statements from an initial list of 108, reducing the number by eliminating redundant statements, the meaning of which was more effectively conveyed elsewhere. Some statements were rephrased for clarity or to reverse their meaning, to give a balanced set of statements (called a Q set). This was then piloted with 3 respondents (two academics working on conservation issues, and a representative from an international conservation NGO). Minor alterations for clarity were undertaken following the pilot phase.

### **Recruiting Q participants**

Our Q study was conducted with respondents drawn from delegates at the ICCB, held in Montpellier, France, 2nd - 6th August, 2015. This congress is the main international event run by the Society for Conservation Biology (<http://www.conbio.org/AboutUs/>). This event was chosen because we intended to capture views on the New Conservation debate from a wider group of respondents than those who had made previous public contributions to the debate, but where respondents were likely to have read or heard such contributions because they form part of the conservation 'mainstream', including academics and practitioners from major NGOs. The ICCB is the largest academic conservation conference in the world attracting roughly two thousand delegates from around 100 countries, making it an ideal venue for our study. The programme also contained a plenary debate between Peter Kareiva and ecological economist Clive Spash on the New Conservation that would likely prompt delegates to think about these issues. The attendees at the ICCB, and correspondingly the data gathered by our research, do not span the entire breadth that may exist within conservation on these issues, and many key voices, such as indigenous groups and rural residents of the global South, are significantly



under-represented at such events. Nevertheless, sampling the conference delegates allowed us to meet our objective of surveying views from a wider group of conservationists than those who have dominated the public debate on the New Conservation to date.

Our research team at the Congress comprised all authors and two data collection assistants. We carried out face-to-face interviews with respondents, during which the Q survey provided the main stimulus. Respondents were selected purposively, rather than following conventional inferential statistical sampling aims, in order to capture the widest possible range of views (Watts and Stenner, 2012). Four aspects drove our recruitment: a range of seniority that included some thought-leaders and some more junior respondents; the targeting of people with a known and distinct position on the debates (e.g. those who presented a relevant conference paper, or made a discussion point referencing the debate); an initial conversation through which we established whether previously unknown respondents had a position on the debates; and, the representation of people from a range of genders, geographical origins and sectors (e.g. academic and practitioner). The research team met daily through the congress to discuss progress and develop strategies to target under-represented groups or perspectives, until we judged that a sufficiently wide range of viewpoints had been captured. This was judged to be sufficient when responses represented both the existing published positions on the New Conservation debates, but also a range of other perspectives. We also ensured that our fourfold recruitment aims (detailed above) were achieved in this sample. 30 Q sorts were completed in total (see Table 2). Respondents were informed that their responses would be anonymised and were asked to represent their own views rather than those of their organisation. Permission to conduct the survey was obtained in advance from the

organisers of the ICCB. This research was subject to the ethical clearance procedure for research with human subjects at the University of Leeds.

[[[table 2 about here]]]

## **The interviews**

All interviews were conducted in a quiet place away from other people. After an initial explanation of the project and the method, respondents completed the Q survey, sorting the statements onto the grid we used (Figure 1). We emphasised that the method measures the extent to which respondents agree with each statement relative to all the other statements, rather than gauging an absolute level of agreement. The grid and our instructions covered the range: ‘most like I think’, to ‘least like I think’, and we encouraged respondents first to gather statements into three piles. Two of these represented statements at the ends of the salience continuum, whereas the third was for statements of lower or intermediate salience. Respondents were then asked to distribute statements onto the grid from these piles. During the interview, respondents were encouraged to explain the rationale behind their sorting and this yielded complementary qualitative data, recorded in writing by the researchers. Where respondents had questions about statements, the researcher gave limited help to explain the meaning of the statement whilst aiming not to bias the respondent.

[[[Figure 1 about here]]]

Theory suggests that Q methodology grids should follow a normal distribution (Watts & Stenner 2012). Respondents were not constrained to follow the normal distribution

shown on the grid, but were encouraged to follow it as closely as possible. Rather than being a requirement of statistical analysis, this encourages respondents to prioritise statements, thereby revealing what is really salient to them (McKeown & Thomas 1998; Watts & Stenner 2012). Fifteen of the 30 respondents did not constrain their responses exactly to the normal distribution.

## **Q analysis**

Q sorts were analysed using PQMethod software. Q analysis involves three statistical procedures used in sequence: correlation, factor analysis (we used centroid analysis), and computation of factor scores (see Watts and Stenner 2012). We chose to rotate three factors following criteria in Watts and Stenner (2012; 92-110). This was based on a holistic judgement of the quantitative results of the analysis and our qualitative interpretation based on our understanding of the respondents and their viewpoints. We used a varimax analysis, with automatic flagging of respondent Q sorts to factors using PQMethod's statistical threshold. Five respondents were not flagged for any one factor. Following the quantitative stages, the analysis becomes more interpretive of the factors, understood through representative Q sorts generated for each factor during the analysis (which represent the common ordering of statements for Q sorts associated with this factor - see Table 3).

## **Results**

In this section, we outline the three factors identified, presented in Table 3. We encourage readers to consult Table 3 to interpret differences between the factors, recognising that interpretation in Q is somewhat subjective (Eden et al. 2005). In what follows, we interpret the factors themselves and the consensus statements,

which do not distinguish between any pair of factors. Throughout, we refer to Q statement numbers in parentheses, and mark distinguishing statements (ranked in a significantly different way in one or both other factors; Watts & Stenner 2012), with an asterisk. Where we refer to qualitative interview data in the results section, it derives from a respondent belonging to the factor being described.

[[[Table 3 about here]]]

## Factor 1

Factor 1 is associated with nine respondents, and is primarily distinguished by scepticism about markets, corporations and capitalism; strong relative disagreement is displayed that conservation should work with capitalism (17\*, -3). There is concern that economic rationales displace other motivations for conservation and lead to unintended consequences (28\*, 2; 25\*, 1). More generally, plural rationales are thought to strengthen conservation (26, -4). Corporations are not considered a positive force for conservation (18\*, -1), nor is their support essential (35\*, -3). As one respondent noted, corporations are “unlikely to fully support conservation objectives” [Interview 9]. There is relative disagreement that economic growth is the best way to promote human wellbeing (38, -2), and reform of global trade is considered necessary (31\*, 2).

This factor conveys strong concern with the environmental impact of the world’s rich (6\*, 4), and less concern with overall population growth compared to the other two factors (19, 0). Associated respondents believe that conservation should do no harm to poor people (36, 2) and should seek to improve the wellbeing of all humans (21\*,

1). These goals were higher priorities than conserving nature for nature's sake (4\*, 0), but slightly lower than conserving ecosystem processes (24, 3) and biodiversity (34, 2). This factor conveys ambivalence about whether conservation can only be successful by benefiting the poor (3\*, 0). This factor consistently did not favour traditional wilderness-focused conservation, conveying the sense that pristine nature does not exist (9, 3) and that humans are not separate from nature (1, -4).

This factor promotes the idea that ethical values (23\*, 4) are more important than science (13\*, 0) in setting goals, with several respondents opining that the goals themselves are ethical statements. One noted that "science should inform how you do things in conservation, but not necessarily the goals" [interview 18]. Biological evidence is not considered to be the most important source of evidence (7, -1). Unlike other factors, Factor 1 was characterised by the idea that conservation should reduce human's emotional separation with nature (22\*, 3). One respondent voiced strong opinions that separations of rational and emotional aspects of thought were unhelpful [interview 8], and two further respondents felt that the promotion of emotional connections with nature was an essential aspect currently missing in debates about conservation's future [interviews 1, 19].

## Factor 2

Factor 2 is associated with nine respondents. The most salient statements of Factor 2 relate to the importance of conserving biodiversity (34\*, 4) and ecosystem processes (24, 4) as goals of conservation. The factor is distinctly biocentric, prioritising nature for nature's sake (4\*, 3), and rejecting the idea that 'protecting nature for its own sake does not work' (14, -3). Human wellbeing as a conservation

goal is not a strong priority (21, 1), but this factor regards 'win-win' outcomes as often possible (2\*, -4); together these and the placement of statement 3\* (1), regarding an instrumental rationale for conservation providing benefits to local people, characterise human wellbeing as an important secondary objective of conservation. Factor 2 presents itself as pragmatic in relation to an interest in plural rationales (26\*, -1), and public support for conservation is regarded as a priority (16, 3). The use of doom and gloom messages is strongly rejected (29, -3).

The placement of statements 15 and 32 show that value in nature is considered to be everywhere, with an interest in conservation in all landscapes, e.g. "agricultural landscapes can have a very high conservation value" [interview 6]. However, some areas are considered pristine (9\*, -2), a view that distinguishes this factor. Some interest in 'strict' protected areas (PAs) is in evidence (10\*, 2). This factor is strongly science-oriented in terms of goal setting (13\*, 3) and favours evidence from biological sciences (7\*, 1).

Factor 2 conveys a perceived need for reductions in population growth to achieve conservation goals (19, 2), for instance: "I know it's controversial, but people are causing the problems and there are too many of them" [Interview 5], as well as some concern about the environmental impacts of the rich (6, 2). In terms of how associated respondents consider local people and poverty, there is lower concern about doing no harm (36\*, 0) and displacement of people by conservation action than in other factors (8\*, 0), although in the qualitative data respondents highlighted the need for appropriate consultation and consent from local communities [Interview

15], and that “we should try to avoid [displacement], but there may be cases where it could lead to an improvement in people’s well-being” [Interview 6].

Perspectives on economic arguments (25, 0; 28, 0), corporations (18\*, 1), trade (31\*, -1) and capitalism (17\*, -1), are not priorities within this factor. This was coupled with the qualitative sense from one respondent that they did not have enough understanding of these issues to have strong views [Interview 5]. There was also some pragmatism that conservation needed to work with capitalism, but as one respondent stated: “that doesn’t mean [capitalism] doesn’t need to be changed” [Interview 5].

### Factor 3:

Factor 3 is associated with seven respondents and primarily distinguished by its relative optimism about corporations (18\*, 3) and capitalism (17\*, 1). Those aligned with this factor express relative disagreement that there is a risk of economic rationales displacing other motivations (28, -1), and neutrality about whether using economic arguments could lead to unintended consequences (25, 0). In the words of one respondent aligned with this factor, “Capitalism is not such a bad thing” [Interview 29]. Those aligned with this factor believe that reforming global trade is necessary (31\*, 1) and that human population growth should be reduced (19, 1), but their views on these issues lie between the other factors’ positions. In the view of associated respondents, impact on nature does not grow in line with income (33\*, -2).

Those aligned with this factor hold strong views about the impact of conservation on people, believing it should do no harm to the poor (36, 4) and should not displace people to make way for PAs (8\*, -3). The factor displays more optimism than others about the contribution of economic growth to wellbeing (38\*, -1), and considers more strongly than others that conservation will only succeed if it benefits people (3\*, 2). As one respondent said when considering the wellbeing statement (21), “No. The goal should be conservation” [Interview 21]. This factor displayed less optimism than others about the possibility of win-wins for people and nature (2\*, 0). One respondent said “I don’t believe in this win-win-win, everyone wins. No. Some people will lose” [Interview 29].

Those aligned with this factor believe that pristine nature untouched by people does not exist (9, 3). Perhaps as a consequence, they express strong relative disagreement that strict PAs are required to achieve conservation goals (10\*, -4). Biodiversity is slightly less of a priority for this factor than factor 2 (34, 3), and unlike the other factors, associated respondents do not see conserving nature for its own sake as a goal of conservation (4\*, -1), nor do they think this strategy works (14\*, 1). The factor is positive about the role of science in goal setting (13\*, 2) and sees the need for more than just biological science evidence in conservation (7, -1). Unlike Factor 1, here ethical values are not seen as important for goal setting (23\*, -1). As one respondent aligned with this factor said: “maybe conservation has too many goals now” [Interview 21].

Those aligned with this factor believe that successful conservation requires broad public support (16, 2). They were fairly neutral on the need to reduce the emotional



separation of people and nature (22\*, 0). They also believed strongly that plural rationales do not weaken conservation (26, -3). One respondent said that “the inability to see others’ views, to see plurality of opinions and values is detrimental” [Interview 23].

## Consensus statements

There is relative consensus that significant value exists in highly modified landscapes (15), while non-native species are generally thought to offer some conservation value (32). There is consensus in weak relative disagreement with the idea that highlighting human domination of the planet may be used to justify further environmental damage (11). Consensus surrounds the idea that giving a voice to those affected by conservation actions improves conservation outcomes (30), as well as being an ethical imperative (37). There was consensus around a low salience ranking (+1 or 0) regarding whether conservation must benefit poor people as an ethical imperative (5), and relative disagreement with the proposition that human affection for nature grows in line with income (20). Relative consensus exists on the notion that conservation messages promoting anthropocentric rationales can be as effective as those emphasising biocentric rationales (27). Finally, there was general agreement that maintaining biodiversity (34) and ecosystem processes (24) should be goals of conservation, but these did not meet the statistical criteria to be considered consensus statements.

## Discussion

392 This paper provides the first published evidence of what a wider group of  
393 conservationists who have not actively participated in the public debate about the  
394 New Conservation think about the issues raised and positions put forward within that  
395 debate. The results suggest the existence of at least three distinct ways of thinking  
396 about these issues present within our sample. Two of these positions are  
397 recognisably related to the ‘traditional’ and New Conservation positions described in  
398 the literature (Factor 2 and Factor 3 respectively), albeit with important distinctions.  
399 The third (Factor 1) is strongly divergent from either of the positions described in the  
400 New Conservation literature, and includes elements more closely resembling the  
401 positions on market-based conservation found in the literature on ‘neoliberal  
402 conservation’. The following paragraphs analyse the similarities and differences  
403 between the three factors we found and those described in the New Conservation  
404 and other literatures. In doing so we offer descriptive labels for each factor. These  
405 are simplifications of the nuanced content of each Factor, but offer them as useful  
406 shorthand to identify positions and facilitate further debate. Finally, we consider the  
407 implications of these findings before discussing this study’s limitations and possible  
408 avenues for future research.

409 The position described by Factor 2 resembles the ‘traditional’ conservation view  
410 most closely associated in this debate with the writing of Michael Soulé (2013; also  
411 Miller et al. 2014), although with some important differences. As a result, we label it  
412 “Traditional Conservation 2.0”. Areas of overlap include a primarily biocentric  
413 motivation for conservation, a focus on conserving biodiversity and ecosystem  
414 processes, a belief in the existence of pristine areas and in the value of biocentric  
415 arguments when communicating conservation. This factor places a low level of  
416 priority on market based mechanisms and economic arguments for conservation,

resembling arguments put forward in recent published contributions opposing the New Conservation (e.g. McCauley 2015). However, the position described by Factor 2 does diverge from the standard 'traditional' conservation position described in the literature. In particular (and in line with Factors 1 and 3), it promotes the conservation of biodiversity wherever it is found, including non-native species and in highly modified landscapes as well as in strict PAs, in contrast to the traditional conservation position which focuses strongly on pristine nature in strict PAs. This raises the question of whether the traditionalist position of authors such as Soulé (2013) and Wilson (2016) has relevance for many contemporary conservationists, or represents an ultra-orthodox view held only by a small minority.

The position described by Factor 3 in our study resembles the New Conservation position most closely associated with the writing of Peter Kareiva and Michelle Marvier (Kareiva et al. 2012; Kareiva & Marvier 2012), although again there are important differences. As such, we label it "Nearly New Conservation". Areas of overlap include a generally optimistic view of market-based instruments in conservation, an interest in novel ecosystems and modified landscapes as well as more pristine areas, and a belief that science should play a strong role in conservation. Two areas of apparent distinction emerge between Factor 3 and standard New Conservation positions. First, the New Conservation literature tends to adopt a primarily anthropocentric rationale for conservation in which benefiting people is an important goal in itself, whereas Factor 3 is more concerned about avoiding harm to people than actually *increasing* their wellbeing. This suggests Factor 3 represents a more instrumental view of the importance of benefiting people as a means to an end rather than an end in itself. Second, Factor 3 is fairly neutral on the importance of addressing a separation of people from nature, whereas

Kareiva, a key architect of the New Conservation earlier argues that this separation “may well be the world's greatest environmental threat” (2008; 2758).

Whilst Factors 2 and 3 in our study map fairly neatly onto positions described in the existing New Conservation literature, Factor 1 does not. It shares aspects of the Factor 3 position, being concerned for biodiversity in modified as well as pristine landscapes, and convinced of the need to avoid harm to people. However, it strongly diverges from Factor 3 in its views on the role of corporations and market based instruments in conservation, being critical of them both. As such, we label it “Market Scepticism”. The position described by this factor is perhaps most closely aligned with those contained within critical social science scholarship on so-called ‘neoliberal conservation’ (e.g. Igoe & Brockington 2007; Brockington & Duffy 2010). There is also strong overlap with the position of Spash (2015) put forward in a recent article and presentation to the ICCB, and with the ‘social instrumentalism’ position described by Matulis & Moyer (2016). These critical arguments are almost absent from the literature that explicitly refers to the New Conservation debate, despite appearing in mainstream conservation publications (e.g. Redford and Adams 2009) and being commonplace in the literature and conferences of the conservation social science community which faces academic audiences in geography, anthropology, political science, and other disciplines.

The results of this paper have two important implications for the New Conservation debate and broader thinking on future directions for conservation. Firstly, it is clear that there are more than two perspectives on what conservation is, why it matters and how to do it. Others have pointed out that the New Conservation literature creates a false dichotomy (Tallis & Lubchenco 2014), and our results support this. Critics have argued that the debate has been dominated by established and

467 influential figures from a narrow demographic, rather than representing the broader  
468 demographic of conservation researchers and practitioners (Tallis & Lubchenco  
469 2014), and has been conducted in an overly adversarial manner (Marris 2014). Our  
470 qualitative data support this claim, and the dissatisfaction with the tone and nature of  
471 the debate amongst practising conservationists. One respondent working for an  
472 international NGO stated that “the modus operandi of the loudest voices [in the New  
473 Conservation debate] is to provoke... It is a distraction from the real challenges the  
474 sector faces” [Interview 23]. Indeed, given that not all voices in conservation are  
475 present at the ICCB, particularly those of groups which have been historically  
476 marginalised in conservation debates, the range of opinions is undoubtedly even  
477 broader than that captured by this study.

478 Secondly, it is striking that we identified a position (Factor 1), which is almost  
479 completely absent from the New Conservation literature. Nine of our respondents  
480 were associated with this perspective and a similar position, argued by Clive Spash  
481 in a plenary debate at the ICCB conference, received a standing ovation from large  
482 sections of the audience. This finding begs the question of whether there is a latent  
483 critical viewpoint on neoliberal conservation that is held by a large number of  
484 conservationists but not represented by the actions of most conservation  
485 organisations or the writing of scholars like Soulé, Kareiva and Marvier. Previous  
486 research using Q method has found similar resistance among some conservationists  
487 to market-based conservation (Sandbrook et al. 2013a; Blanchard et al 2016).  
488 Articles in mainstream conservation journals have critiqued the underlying premises  
489 of market based conservation (Redford and Adams, 2009, Spash 2015), often  
490 authored by critical conservation social scientists. If such views are widespread then  
491 there may be a ready audience for critical conservation social science scholarship

among the conservation community, adding further weight to previous calls to improve the communication of ideas between these groups (Sandbrook et al. 2013b). To discover the prevalence of the viewpoints we identified, further research could build on this study by using survey methodologies designed to produce inferential results, focusing in particular on the conservation practitioner and non-Anglophone communities that are less well represented at the ICCB.

Conservation is many things to many people, and it is not surprising that people do not agree about everything. Whilst divisions over the New Conservation could be treated as an “ecumenical” matter (Marvier 2014), with different approaches more suitable in different contexts (Pearson, 2016), there will be places where they will collide, and there will be important disagreements that are worth acknowledging and discussing (Sandbrook 2015). Matulis & Moyer (2016) argue that such “agonistic pluralism” is preferable to the “inclusive conservation” that others have called for (e.g. Tallis & Lubchenco 2014), which can stifle minority viewpoints. That said, our study did identify some important areas of consensus and shared ground between our respondents, such as a recognition of the value of modified habitats, the importance of conserving ecosystem processes, and the need to give a voice to local people. In what has often been an adversarial public debate, the existence of these points of agreement could provide platforms for constructive debate in the conservation community about areas of disagreement. Our findings provide a fuller and more nuanced understanding of the variety of views that exist. We hope that this will improve the quality and tone of debates surrounding the future of conservation.

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594

<b>Functional postulate</b>
<p>“‘pristine nature,’ untouched by human influences, does not exist.’</p> <p>‘the fate of nature and that of people are deeply intertwined.’</p> <p>‘nature can be surprisingly resilient.’</p> <p>‘human communities can avoid the tragedy of the commons.’</p> <p>‘local conservation efforts are deeply connected to global forces.’</p>
<b>Normative postulate</b>
<p>‘conservation must occur within human-altered landscapes.’</p> <p>‘conservation will be a durable success only if people support conservation goals.’</p> <p>‘conservationists must work with corporations.’</p> <p>‘conservation must not infringe on human rights and must embrace the principles of fairness and gender equity.’</p>

595 Table 1

596

<b>Gender</b>	Female	Male				
	12	18				
<b>Continent</b>	Europe	Africa	Asia	N America	Oceania	S America
	13	3	3	4	6	1
<b>Sector</b>	NGO	Academia				
	13	17				
<b>Self-identify as:</b>	Researcher	Practitioner	Both			
	18	5	7			

597 Table 2

ID	Statement	Factor 1		Factor 2		Factor 3		Dist/ Cons
		Norm.	Z	Norm.	Z	Norm	Z	
1	Humans are separate from nature not part of it	-4	-1.88	-4	1.49	-4	-2.23	
2	Win-win outcomes for people and nature are rarely possible	-3	-1.06	-4	-1.63	0	0.02	F1, F2, F3
3	Conservation will only succeed if it provides benefits for people	0	0.05	1	0.61	2	1.11	F2, F3
4	Conserving nature for nature's sake should be a goal of conservation	0	0.33	3	1.17	-1	-0.30	F1, F2, F3
5	Conservation must benefit poor people because to do so is an ethical imperative	1	0.69	1	0.41	0	0.20	Cons
6	To achieve conservation goals, the environmental impact of the world's rich must be reduced	4	1.43	2	0.82	1	0.49	F1
7	Conservation actions should primarily be informed by evidence from biological science	-1	0.70	1	0.53	-1	-0.31	F2
8	It is acceptable for people to be displaced to make space for protected areas	-1	-0.60	0	-0.03	-3	-1.73	F1, F2, F3
9	Pristine nature, untouched by human influences, does not exist	3	1.20	-2	-1.13	3	1.38	F2
10	Strict protected areas are required to achieve most conservation goals	-2	-1.00	2	0.69	-4	-1.83	F1, F2, F3
11	There is a risk that highlighting human domination of the planet may be used to justify further environmental damage	0	-0.45	-1	-0.57	-2	-0.42	Cons
12	Nature often rebounds from even severe perturbations	0	-0.13	-1	-0.30	1	0.48	F3
13	Conservation goals should be based on science	0	-0.38	3	1.83	2	0.82	F1, F2, F3
14	Protecting nature for its own sake does not work	-2	-1.04	-3	-1.38	1	0.22	
15	There is no significant conservation value in highly modified landscapes	-1	-0.84	-3	-1.43	-3	-1.32	Cons
16	Conservation will only be a durable success if it has broad public support	1	0.72	3	1.39	2	1.07	
17	Conservation should work with, not against, capitalism	-3	-1.16	-1	-0.36	1	0.29	F1, F2, F3
18	Working with corporations is not just pragmatic; they can be a positive force for conservation	-1	-0.55	1	0.31	3	1.18	F1, F2, F3
19	To achieve conservation goals, human population growth must be reduced	0	0.10	2	0.79	1	0.51	
20	Human affection for nature grows in line with income	-3	-1.13	-3	-1.30	-2	-1.00	Cons
21	Advancing the wellbeing of all people should be a goal of conservation	1	0.94	1	0.37	0	0.05	F1

22	Conservation should seek to reduce the emotional separation of people from nature	3	1.14	-1	-0.54	0	0.12	F1, F2, F3
23	Conservation goals should be based on ethical values	4	1.33	1	0.40	-1	-0.26	F1, F2, F3
24	Maintaining ecosystem processes should be a goal of conservation	3	1.19	4	1.84	4	1.61	
25	Economic arguments for conservation are risky because they can lead to unintended negative conservation outcomes	1	0.74	0	0.12	0	0.08	F1
26	Plural rationales for conservation weaken the conservation movement	-4	-1.65	-1	-0.77	-3	-1.59	F2
27	Conservation messages promoting the benefits of nature to humans are less effective than those that emphasise the value of nature for nature's sake	-1	-0.67	-2	-0.92	-2	-0.78	Cons
28	There is a risk that economic rationales for conservation will displace other motivations for conservation	2	0.98	0	0.14	-1	-0.17	F1
29	Conservation communications are more effective when they use doom and gloom rather than positive messages	-2	-0.96	-3	-1.31	-3	-1.67	
30	Giving a voice to those affected by conservation actions improves conservation outcomes	1	0.81	2	0.92	3	1.25	Cons
31	To achieve its goals, conservation should seek to reform global trade	2	1.10	-1	-0.37	1	0.36	F1, F2, F3
32	Non-native species offer little conservation value	-1	-0.71	-2	-0.95	-1	-0.35	Cons
33	Human impact on nature grows in line with incomes	1	0.89	0	0.15	-2	-0.48	F1, F2
34	Maintaining biological diversity should be a goal of conservation	2	1.09	4	2.01	3	1.23	F2, F3
35	Conservation will only be a durable success if it has the support of corporations	-3	-1.29	0	-0.28	0	-0.13	F1
36	Conservation should seek to do no harm to poor people	2	1.13	0	0.27	4	1.57	F2
37	Giving a voice to those affected by conservation action is an ethical imperative	3	1.28	3	1.01	2	0.77	Cons
38	The best way for conservation to contribute to human wellbeing is by promoting economic growth	-2	-0.96	-2	1.01	-1	-0.26	F3

[illegible]

600

601 Figure 1

602

603 **Table 1.** Functional and normative postulates for the New Conservation, as proposed in Kareiva and  
604 Marvier (2012; 965-967)

605

606 **Table 2:** Composition of sample of interviewees

607

608 **Table 3:** Numerical representations of factors, showing z scores and normalised Q-scores  
609 (corresponding with the grid in Figure 1) for each statement. . The final column indicates which  
610 statements were distinguishing statements at  $p < 0.05$  and for which factor, and which statements  
611 were consensus statements, with blank cells for statements that were neither consensus statements  
612 or statistically significant in distinguishing between factors.

613 **Figure 1:** The Q methodology grid used for this study. Respondents were asked to allocate  
614 statements to cells reflecting their relative agreement with each statement

615

616